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RP-HPLC同时测定湖北旋覆花中3种倍半萜内酯的含量

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中文摘要:目的: 建立RP-HPLC同时测定湖北旋覆花中锦葵素,二氢锦葵素,银胶菊素 3种倍半萜内酯含量的方法。 方法 :Agilent C_{18}色谱柱(4.6 mm×250 mm,5 μm),流动相为乙腈-水,线性梯度洗脱,测定波长210 nm,柱温40 ℃,流速1.2 mL·min^{-1},进样量10 μL。 结果 :锦葵素,二氢锦葵素,银胶菊素的质量浓度分别在0.017 92~0.179 2 g·L^{-1}(r =0.999 9),0.042 4~0.424 0 g·L^{-1}(r=0.999 6),0.044 8~0.448 0 g·L^{-1}(r=0.999 6)时线性关系良好,平均加样回收率依次为98.5%,98.2%,98.4%,RSD为1.3%,1.3%,1.7%。不同品种旋覆花药材中3种倍半萜内酯的含量差异较大。 结论 :该方法简便、快速、准确,适合于同时测定湖北旋覆花中锦葵素,二氢锦葵素,银胶菊素的含量,可用于湖北旋覆花的质量控制和旋覆花药材的真伪鉴定。

中文关键词:RP-HPLC 湖北旋覆花 倍半萜内酯 锦葵素 二氢锦葵素 银胶菊素

Simultaneous determination of three sesquiterpene lactones in *Inula hupehensis* by RP-HPLC

Abstract: Objective : A RP-HPLC method was developed for simultaneous determination of bigelovin, ergolide and tomentosin in *Inula hupehensis*. Method : An Agilent C_{18} column (4.6 mm×250 mm, 5 μm) was used for separation at 40 ℃. The mobile phase was acetonitrile-water, and the flow rate was 1.2 mL·min^{-1}. The detection wavelength was set at 210 nm. Result : The method has good linearity in the ranges of 0.0179 2-0.179 2 g·L^{-1} (r=0.999 9) for bigelovin, 0.042 4-0.424 0 g·L^{-1} (r =0.999 6) for ergolide, and 0.044 8-0.448 0 g·L^{-1} (r =0.999 6) for tomentosin. The average recoveries of bigelovin, ergolide, and tomentosin were 98.5%, 98.2%, 98.4%, with the RSD of 1.3%, 1.3%, 1.7%, respectively. The results demonstrated that there was a significant difference in the contents of three sequterpene lactones among the tested Inulae Flos. Conclusion : The results indicated that the present RP-HPLC method is simple, quick and accurate, and can be used for the quality control of *I. hupehensis*, especially for the authentication of Inulae Flos.

keywords:RP-HPLC *Inula hupehensis* sequterpene lactones bigelovin ergolide tomentosin

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